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MONTHLY JOURNAL OF
THE MUSHROOM GROWERS'
ASSOCIATION

MGA
BULLETIN

AUGUST, 1954 · NUMBER 56

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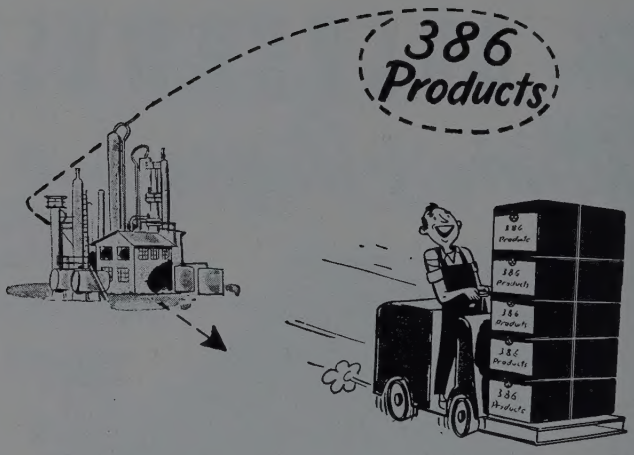

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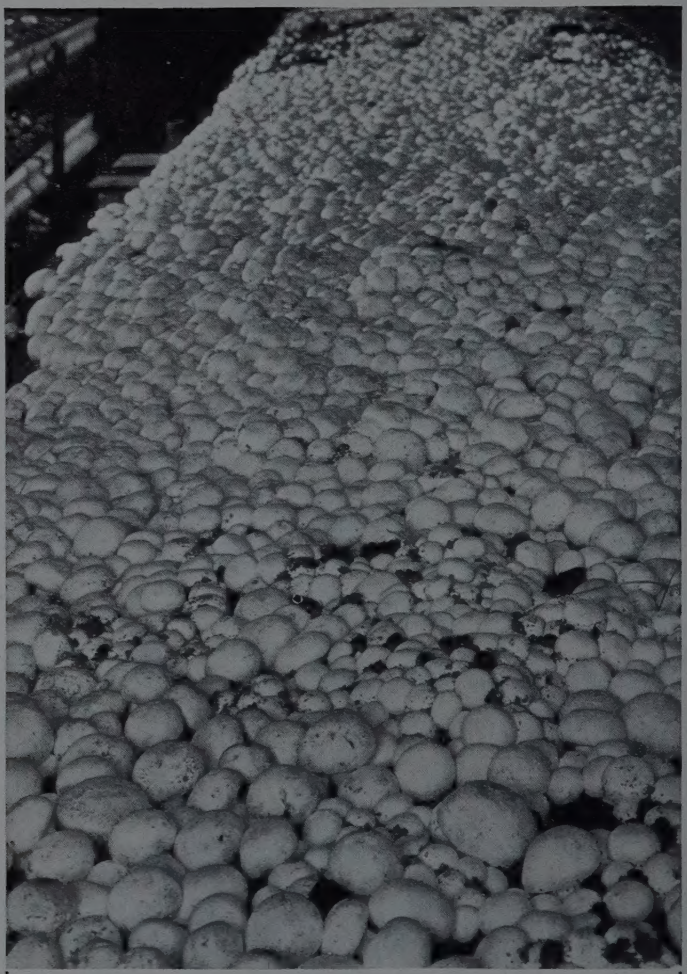

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AFTER MANY EXPERIMENTS MOST GROWERS RETURN TO

The
MGA BULLETIN

AUGUST · 1954
NUMBER 56

EDITORIAL

DECISION JUSTIFIED

After a lapse of nearly a year, in the course of which hopes have alternatively soared and then dropped into almost blank despair, a scheme for raising money for publicity was agreed upon between the spawn makers on one side and the MGA Executive Committee on the other, at a meeting held in the NFU Offices, in Bedford Square, on Wednesday, 21st July.

It was at the last annual general meeting that the Executive Committee were asked to take all possible steps to bring about mushroom publicity and, in pursuance of those instructions, a meeting between the spawn makers and the MGA representatives took place in London last December, but nothing, other than disagreement, was achieved. Subsequently a plan was put forward for a levy on each chip of mushrooms sold, but this too failed to find general agreement. The decision to again seek agreement with the spawn makers has proved to be fully justified.

Give praise to the spawn makers who, naturally averse to putting up the price of spawn by even so much as a penny per carton, and naturally averse at any measure which made such a levy compulsory, were, nevertheless, prepared to see both sides of the argument and to give and take, in the interests of the industry as a whole. Let it be clearly understood also that the spawn makers, standing to gain it is true by any increased trade which should result from increased consumption, are content to endeavour to operate this scheme in the interests of the industry as a whole, taking for themselves not a fraction of the levy. Praise too, to the MGA Executive for sticking to its guns over publicity and for its attitude of give and take which, with that of the spawn makers, made agreement possible.

It is up to each and every grower to support this scheme. There is much to gain and so little (1d. per carton is the equivalent of .025 1d. per lb.) to lose.

W.R.A.

LINDFIELD FARM WALK

About 140 MGA members attended a farm walk at Messrs. Lindfield Nurseries Ltd., Lindfield, Sussex, on Saturday, 19th June, organised by the Kent, Surrey and East Sussex Area Committee.

Farm walks are always a popular activity amongst MGA members but this proved one of the most successful ever and interest was lent to the gathering by the fact that members of the Executive Committee who had met in the morning at the County Hotel, were also present with the Chairman of the Association, Capt. G. P. Lawrence and the Vice-Chairman, Mr. G. W. Baker.

Prior to a tour of the farm the party met in the spacious composting building where Capt. Lawrence was introduced and he and Mr. F. L. Filmer (of Messrs. Lindfield Nurseries Ltd.) both spoke for a few minutes after an introduction by Mr. Baker, Manager at the nurseries, Mr. G. G. Atkinson then explained the growing methods successfully carried out on this 38,000 sq. ft. mushroom farm. Composting with half heavy horse and half racing stable manure was on orthodox lines, being turned four times and roughly once a week. Liquid residue from the stacks was always pumped back. The houses were all on the shelf system and an eight week picking schedule was tightly adhered to.

Mr. Atkinson explained that the farm consisted of eight two-storeyed houses each containing 4,500 sq. ft., and three small 600 ft. houses which were originally designed for experiments and in which the farm experiments were still carried out.

It is of interest to note that this mushroom farm was originally built by a Mr. Slack, a Canadian who, now back in Canada, is still growing mushrooms and his firm, Messrs. Slack Bros., are members of the MGA.

Tea was taken at the County Hotel and afterwards Dr. R. L. Edwards, Head of the MRA, gave an interesting talk on "Casing Soils-Natural and Artificial." Among the points he strongly stressed was the need for better management of casing materials and he urged members who had already adopted methods which were giving fairly satisfactory results, to concentrate on improving these methods with the materials with which they were familiar rather than to experiment with something which was entirely new to them.

*Mr. T. J. RUDKIN, *of* **Big Common Lane, Bletchingley, Surrey,** *writes to the Editor on:*

PUBLICITY

WHAT IT MEANS *and* HOW TO GO ABOUT IT

Arising out of your forthright editorial on publicity in the MGA Bulletin of June, 1954, comes a strong desire to put forward a point of view which I hope will be helpful to the Association in general and to the Publicity Committee in particular.

It is this: one reason for the apathy of the 50% might come from the fact that publicity itself is sometimes suspect.

It may sound strange to you that I, who have had nearly forty years continuous service in publicity and advertising, should state this, but nevertheless, such is the case.

There are reasons for this attitude of mind, some understandable, others not. The most common attack on publicity comes from the uninformed who regard their existence as a thing apart from the effects of publicity and who therefore condemn the matter " on principle." (Such folk were vocal recently in the House on the question of publicity for detergents). On the other hand there are some who have found that the application of publicity to a cause (which to themselves was laudable in its objectives but which in reality was not so) has not been successful in the way they had hoped.

That such suspicion of publicity should exist amongst members of our Association is to be expected and, as I say, it may be one reason why 50% of the members have been apathetic to your appeal.

At the same time, however, I put forward the suggestion that once suspicion is replaced by enthusiasm (as under an effective publicity scheme it will be) there will be few members who hold back. On the contrary, many will want to get on to the " bandwagon."

The crux of the matter therefore rests in the interpretation of the phrase " effective publicity scheme." For a publicity campaign to be effective there are certain conditions to be fulfilled, as follows:

(1) The campaign must be specific and directed towards a recognisable goal.

(2) The produce or service which it is promoting must be worthwhile.

(3) The people to whom the publicity is directed must be able to take action as a result of the publicity message.

(4) Satisfaction must be given to such people.

(5) The campaign must bring a good return to those who provide the finance.

*Mr. Rudkin is the Senior Executive of a well-known London Advertising Agency and his contribution on Publicity is particularly welcomed. He is a Grower Member of our Association.—EDITOR.

Under **Condition 1,** the injunction " Eat more mushrooms " is general and to some extent vague. " Eat whose mushrooms and why?" On the other hand " Insist on MGA mushrooms for flavour and quality " is specific and much to the point.

Condition 2 is vital. Publicity which says " Eat more mushrooms " can mean any old mushrooms and does, for it is unfortunately true that some retailers offer unpleasant looking collections under the label " Mushrooms." Clearly it would not be worthwhile to promote a greater sale of such things, for there would not be the response. On the other hand, the phrase " Insist on MGA mushrooms for flavour and quality " implies that the mushrooms will be up to a standard which would justify the title " MGA mushrooms."

Condition 3 calls for some means of identification of product. It is at this point that a brand name should come into operation. Because of the publicity, customers can be made to demand a certain product from the retailer and will know that they have been given the right one when they recognise a familiar shape, colour or title or phrase. A very real problem which faces our Association therefore is the establishing of a means of identification of product. In some way, the public must be able to distinguish " MGA quality mushrooms " from " Mush."

Condition 4 determines the future success of the industry. When the public has bought and feels pleased with its purchase, satisfaction has been given. Conversely, when the public has bought and feels that it has paid too high a price for an article which really isn't worth the money, then satisfaction has not been given. In such event, the prospects of further sales are dim. In the case of mushrooms the public is often asked to pay from 5/- to 6/- per lb. for flat mushrooms of unpleasant appearance. Unless the customer feels an overwhelming desire for mushrooms of any sort at any price, there is no prospect of a big sale of such " mushrooms." I suggest that in this fact lies one reason for the inertia of the public to buy mushrooms in greater quantity. If a publicity campaign is to do any good to the members of the Association, it must stimulate the public to go on buying and it can only do so by delivering goods which are worth the price. In these circumstances there will be a ready sale at the shops for fine mushrooms at top prices, a steady demand in the Market, with a steady price for the grower.

Condition 5 is the one which must interest members of the Association most. Unless there is a return for the money spent, then dissatisfaction is bound to arise. Publicity does not ensure a return automatically, for profit lies only in meeting the conditions stated above. Assuming that these conditions can be met in the case of mushrooms as they are met in the case of all successfully advertised products throughout this country and America, then publicity can pay by securing a good return on the capital involved.

The return, however, may manifest itself in various ways, e.g., (1) in a steadying of the market at a fairly constant price, (2) by bringing an assurance of profit rather than an increase in profit, (3) by ensuring greater turnover with a higher annual profit (with a smaller profit per

lb. sold), and (4) in certain circumstances, by securing a greater annual and individual per lb. profit.

Such then is an outline of the scope and possibilities of a publicity campaign. But the real point of the situation as it exists to-day lies in the fact that some 40% of the members appear to be about to foot a bill for publicity which may bring benefit to those who have not subscribed.

On the other hand, those 40% who are willing to subscribe towards the cost of a publicity campaign can adopt a means whereby they alone reap the reward whilst the apathetic 60% can sit and watch.

This means that when marketed, the mushrooms of the publicity minded can be distinguishable to the public from those of the 60% apathetics. How this can be done is undoubtedly a big problem, but the suggestion I have in mind is for the Association to have designed by a well-known artist (such as Eric Fraser, who designs a lot of the *Radio Times* covers) a wrapper paper to replace that now used in plain blue form. A distinctive MGA shade must be chosen. Each sheet should be numbered. This is not a difficult or costly matter. Supplies of this paper would be available only from the Association—at present prices for plain wrapping plus one farthing a sheet for Printing. This sum equals the levy now proposed. The numbered sheets supplied to any member would be recorded. The Association would hold the copyright and could institute proceedings against any one who imitated the design. The publicity arising from any such proceedings could be extremely beneficial to our cause. Covent Garden distributors would no doubt be agreeable to contributing one farthing per chip for each chip distinguished by the MGA paper. In this way the revenue to the Association for publicity will be exactly the same as at present. Although perhaps the total for the first period would be less than anticipated it would without a doubt serve to initiate a scheme. (If necessary I can furnish you with a mass of costs of all kinds of media because, as I have explained, I am an executive of a leading advertising agency as well as a small but determined mushroom grower.)

As a result of some such method as the one outlined above, the public can select a product which has behind it the reputation of growers prepared to answer for the quality of their products. In the event of complaint to the Association, the grower concerned could be traced through the record of the numbered sheet. In this way, the initials MGA will take on the value and significance to the public of any other comparable association. In fact, membership of some associations implies a willingness to conform to the standards of such associations. Whilst I think the need for research has been and will continue to be the prime reason for our Association, the time is fast coming, I believe, when the aims of the Association could be widened to include acceptance of a standard of quality as a condition of membership.

I have written at such length because I feel that the Committee may be about to take a decision to stop any further work on publicity, which I think would be a very great pity, particularly as it has made such a good beginning at the Chelsea Show. I feel sure that once the

dissenting members* of the Association realise the benefits to be secured from a campaign so clearly tied to the MGA initials, they will wish to join. In such an event the Publicity Committee could have no doubt as to which course to take.

**Two of the "dissenting members" are on the Editorial Board and have had a preview of this most helpful article. They wish to point out, on behalf of those who think similarly, that they do NOT dissent from Publicity but only from one method suggested for raising funds for publicity.*

"NOT I" *says* Mr. J. E. ADY

Silverbrows, Rowley Drive, Cranleigh, Surrey

To The Editor:

Dear Sir,

I read with some concern, in Bulletin No. 54, an article entitled "The Fearsome Phorid," in which the writer refers to a grower in the Cranleigh area expecting merchants to remove spent compost in the lorries delivering fresh manure.

I happen to be the only member grower with a Cranleigh address, and members putting two and two together might well focus this accusation on me.

Another grower in Cranleigh not a member drew my attention to the article. He had not read it, but had been questioned by others about it. He is not responsible, either.

To mention any village area would be to pin-point one or possibly two growers which, to my mind, is wrong. I understand the person alluded to is some way away from Cranleigh.

The Staff of the MRA with Dr. Edwards in the centre

YAXLEY STATION CLOSING

Research to be transferred to Toddington

As a result of the arrangements made between the Mushroom Research Association Ltd., the Glasshouse Crops Research Institute, and the Ministry of Agriculture, the Mushroom Research Station at Yaxley will close before the end of this year, and mushroom research will be resumed on the same general lines at the new Glasshouse Crops Research Institute, Toddington, Sussex, as soon as suitable buildings and equipment are ready.

Of the staff at Yaxley, Mr. P. B. Flegg (chemist), Miss D. G. Gandy (microbiologist), and Miss I. I. Warman (technical assistant) will join the new Institute. They will leave Yaxley, on 30th September; Mr. Flegg and Miss Warman will go to work in the Physics Department at Rothamsted Experimental Station for a few months, and Miss Gandy to the NAAS Centre at Wye, Kent, for a similar period, until accommodation is ready for them at Toddington.

Dr. R. L. Edwards, Director of MRA Research will remain at Yaxley, until 30th November, to complete the cropping experiments now in progress and to prepare a final Report. After that he will transfer to commercial mushroom growing and practice as a private consultant.

After the dates mentioned, communications should be addressed as follows:

Concerning the research programme:

To Dr. W. F. Bewley, Director, Glasshouse Crops Research Institute,
Cheshunt, Herts. (temporary).
Toddington, Sussex (permanent).

Requests for advice, examination of samples, etc.:

To the nearest NAAS Horticultural Officer, who will forward them to his Regional laboratory or to the Research Institute if necessary.

Concerning International Conferences on Mushroom Science and personal letters to:

Dr. R. L. Edwards,
Ratcliffe Lodge,
South Luffenham,
Oakham, Rutland.

Copies of MRA Reports will be available from:

The Secretary, MGA,
Yaxley,
Peterborough,
Northants.

From 30th September until the end of this year personal letters should be addressed to Mr. P. B. Flegg, at the Physics Department, Rothamsted Experimental Station, Harpenden, Herts.
and to Miss D. G. Gandy, at NAAS Centre, Olantigh Road, Wye, Kent.

Early in 1955, they will both move to the Glasshouse Crops Research Institute, Toddington, Sussex, but the exact date of the move is not known.

THE FRED. ATKINS ALPHABET—H

Heating. One big advantage that some caves have over mushroom houses is their constant temperature in the 55—60° F. range. Where buildings have to be heated, much forethought is desirable, not only concerning the form of heating (by hot water, steam or electricity) but to the economies which can be effected by insulation. Some insulation is extravagantly inadequate, and money could be saved on most buildings by a little attention to its improvement.

Hexylresorcinol. A bactericide used in operating theatres and other places where aseptic conditions are important. I don't know how successful it would be (or has been) in mushroom houses; perhaps one of our progressive members will enlighten us?

HETP. The phosphate insecticide hexa-ethyl-tetra-phosphate has now been largely superseded, I am informed, by the more powerful TEPP. Very useful against springtails and most mites. Highly dangerous to workers when fresh, but very soon after dilution becomes harmless.

Histiostoma. The tiny mite which crawls under the name of *Histiostoma rostro-serratum* is not considered by Ministry Bulletin 34 to be directly injurious in Britain, but the *gracilipes* species of the same family is regarded in the States as a serious pest.

Hormones. These chemical substances produced by glands and passed into the blood stream produce amazing reactions in animals and plants, and some work has been done on their effect on mushrooms. But it would be a brave man who professed he knew one which would invariably improve cropping in our strange business.

Horse-manure. Ten years ago we were warned it was fast disappearing, and we set about finding an alternative medium. Now there seems to be such a glut that big stables are almost giving it away. Why?

Houses. A good cropping house can have as big an influence on crops as compost, the casing, and management, said M. C. Luxmoore at a recent MGA Course. How right he was !

Humidity. Mushrooms and their parasitic diseases both thrive under atmospheric conditions approaching saturation, and we have to go as near to this as we dare. Few of us feel it wise to overstep 90% Relative Humidity, and Dr. Bels suggested the optimum was 80.

Hydrocyanic acid gas. A deadly poison now used much less frequently than before the war to kill pests at peak heat.

Hydroxyquinoline sulphate. Sarazin reports that one part in 10,000 parts water kills eelworm but not spawn, and it is used extensively in the French caves to counteract "site contamination."

Hydroponics. Water culture of mushrooms is not yet an economic proposition, but a recent report from Syracuse University in America describes the growth of Morels in an aerated broth.

Hygiene. Be thou as chaste as snow, thou shalt not escape; but be as clean as you can.

Hygrometer. Whirl it and see (Humidity, above).

Hypogastrura. According to Ministry Bulletin 34, by far the most injurious species of Springtail is *Hypogastrura* (*Achorutes*) *armata* Nic., which is described as being about $\frac{1}{16}$" long and varying in colour between silver-grey and bluish-black.

Hypopus. The non-feeding stage in the life cycle of certain mites "adapted for the purpose of clinging to insects and other creatures and so being transported to a new locality." How do I know? I have a copy of "the other book," the invaluable Ministry of Agriculture Bulletin 34. (The latest revision of this "best seller" is to be published as soon as it is sufficiently out-of-date).

My Favourite Recipes

11.—Mrs. Thelma Kark, *of Johannesburg*

Fred. Atkins *writes: In an exciting round of South African hospitality in June I was given a dinner party by the wife of MGA member Dr. Charles Kark, one of the leading growers in the Transvaal. I sampled some of the best South African wines, as well as champagne and, with the coffee, Van der Hum liqueur, and the menu is worthy of perpetuation: Avocado pear cocktail; mushroom bisque; chicken peri-peri, chip potatoes, green salad with tomatoes and onions and French dressing; crêpes Suzette. I was so delighted with the mushroom recipe that I persuaded Mrs. Kark to allow it to be published, along with another favourite of hers which I had much enjoyed on a previous visit to Silverstream Mushroom Farm.*

Mushroom Bisque:

Wash and remove the stems from 1 lb. mushrooms. Chop the stems finely, add them to 4 cups well seasoned chicken broth, simmer for 30 minutes, and strain. Prepare 4 tablespoons butter—melt and sauté the mushroom caps thinly sliced until lightly brown. Sprinkle them with 3 tablespoons flour and $\frac{1}{4}$ teaspoon dry mustard and stir until well blended. Gradually add the strained chicken broth and continue stirring until the mixture thickens. Cook for 10 minutes, stirring occasionally. Correct the seasoning and stir in $\frac{1}{4}$ cup sherry, or more to taste; add $\frac{1}{2}$ cup heavy cream and cook for 2 minutes. Dust with paprika when serving.

Sole Mignon:

3 soles filleted. Place fillets flat on a large pyrex platter, season well with salt and pepper. Dot with butter and pour over $\frac{1}{2}$ can tomato soup. Sprinkle with $\frac{1}{2}$ cup grated cheese. Fry about $\frac{1}{2}$ lb. sliced mushrooms with chopped onion in butter. When golden brown scatter mushrooms over fillets and place in oven. Cook for 20 to 30 minutes. Decorate with sprigs of parsley and serve.

MGA at

THE ROYAL AGRICULTURAL SHOW

The MGA Stand at The Royal Agricultural Show, Windsor, last month, again featuring the model mushroom farm made by Mr. G. V. Allen of Bilting, Kent, followed up its success at Chelsea by once more attracting a great deal of attention.

The stand was situated in the NFU marquee in which was seen one of the finest ever displays of horticultural products in this country and which reflected the greatest possible credit on the organisers, the NFU Produce Society Ltd., of which Mr. E. H. Gardener is President and Chairman, and Mr. H. R. Haynes, Secretary.

Her Majesty The Queen, the Princess Royal and the Duke and Duchess of Gloucester visited the marquee. Whilst it is true that the MGA stand, simple and unassuming in a blaze of colour, did not receive the honour of a Royal visit, we were there and, who knows, next time we may be so honoured.

Mr. Raymond Thompson (Chairman, Publicity Sub-Committee) spent three days at the stand, distributing literature and dealing with questions. Other who manned it from time to time included Mr. and Mrs. A. J. Berry, Mr. and Mrs. A. D. Jones (Broadham Produce Co. Ltd.), Mrs. Zivkovic (formerly Miss S. A. Miller), Mr. J. E. Ady, Mr. S. D. Griffin and Mr. Guy Read. As at Chelsea, Mr. Read arranged the stand and also manned it one day. Mushrooms, provided by Mr. Read for display, were favourably commented on and it is worthy of note that mushrooms were prominent on many stands.

The photographs used in this stand, both at Chelsea and " The Royal " were kindly lent by Messrs. W. Darlington & Sons Ltd., of Worthing.

The picture below shows the stand at " The Royal " with Mr. Raymond Thompson (Chairman of the Publicity Sub-Committee), Mr. A. J. Berry and the Secretary.

TUNBRIDGE WELLS

PRELIMINARY ARRANGEMENTS COMPLETE

The preliminary arrangements for the Annual Exhibition and Annual General Meeting of the Association at Tunbridge Wells, on 6th and 7th October, have now been completed and there is every indication that, at the final reckoning, this annual event will prove to have been the largest gathering of mushroom growers ever held in this country.

In order to give members the earliest possible opportunity to make their plans, the main events of the two day programme together with a short list of some of the main hotels, are given below.

Already all the planned stand space in the Assembly Hall, where the annual exhibition is taking place, has been taken and additional space has had to be provided and is likely to be all taken up within the next week or so. Throughout the week commencing Monday, 4th October, and ending Saturday, 9th October, every possible publicity is to be given to the eating of mushrooms and plans for this " Mushroom Week " include a special prize for the best display of mushrooms in any shop in Tunbridge Wells. Newspaper and poster advertising is planned on an extensive scale and arrangements have already been made to display the MGA Challenge Cups in a large store.

Tickets for the annual lunch are available from the Secretary at 17/6d. each.

Preliminary programme:—

Wed., 6th Oct.	Trade Show at the Assembly Hall.
Thurs., 7th Oct.	10 a.m. Annual Meeting in Council Chamber. 12 noon. Chairman's Reception, Elizabethan Barn Lounge. 1 p.m. Annual Lunch, Elizabethan Barn. 3 p.m. Brains Trust, Council Chamber.

The general public is to be admitted on the second day and plans have been made for a cookery demonstration and the distribution of literature including mushroom recipes.

Herewith is a list of some of the main Tunbridge Wells Hotels together with their charges. The Secretary has obtained a complete list of all hotels, boarding houses, etc., and will be pleased to answer any queries. Members might like to know that the Executive Committee is to stay at The Spa Hotel where accommodation can be provided for up to fifty or more bookings. Those wishing to stay at this hotel should make their bookings through the MGA Secretary whilst reservations at other hotels should be made direct.

Hotels:

	£	s.	d.	
Calverley(L), Crescent Road (26 single; 24 double rooms) Tel. 2734	1	10	0	per day
Earl's Court(U), Mt. Ephraim (44-33) Tel. 20347 ..	1	5	6	,, ,,
Molyneux Park(U), Molyneux Park (27-10) Tel. 20567	1	5	0	,, ,,
Royal Mount(L), Mt. Ephraim (7-17) Tel. 21875 ..	1	1	0	,, ,,
Spa(L), Bishop's Down (50-30) Tel. 20331	1	10	0	,, ,,
Swan(L), The Pantiles (8-7) Tel. 2390	1	5	0	,, ,,
Sceptre(L), Southborough (13-7) Tel. Southboro' 2 ..	1	2	6	,, ,,
Vale Royal(U), London Road (21-32) Tel. 580 & 968	18/- to 27/6			,, ,,
Wellington(L), Mt. Ephraim (41-17) Tel. 20286.. ..	1	5	6	,, ,,

* (L) Licensed. (U) Unlicensed.

MAC'S MUSHROOM FAMILY

8. Aunt Mattie Mushroom

ANY OFFERS?

Robert Tyssen, 18-year-old son of a Dutch mushroom grower, is anxious to come and work on an English mushroom farm for several months. He is willing to do any job in the mushroom line, speaks a little English which he hopes to improve, would much prefer to live as one of the family, with his bed, board and pocket money. His address is: Zinnerveldlaan 19, Santpoort, Holland. The Secretary would be glad to hear of anyone interested.

SMALL ADVERTISEMENTS (3d. a word)

PROPRIETOR OF ESTABLISHED MUSHROOM FARM, retiring from active participation, wishes to find grower of integrity and proved ability for working partner. Farm has, at present, 8,500 sq. ft. shelf beds and all conveniences. There is ample room for expansion and full support will be given. Salary and commission by arrangement. Investment £350—£1,000. Immediate or eventual complete transfer considered. Hampshire. Box 10.

WELL SITUATED MUSHROOM FARM 50 miles London for sale £3,000. 60% mortgage available. Or would let to qualified applicant. Latter person assisted, if resources limited, by temporary reduced rent in return for part-time assistance. Opportunity for right person. Box 11.

(*Continued on page 276*)

JOHANNESBURG GROWERS

Fred. Atkins pays flying visit

The mushroom growers in the Johannesburg area of the Union of South Africa extended to me a very warm welcome when I was over there for ten days in June. The day after my arrival Mrs. Elizabeth Mark gave a Reception at her wonderful house, "Vrede Hoek," and on my last evening Dr. and Mrs. Max Chitters held a Cocktail Party at their home to wish me *bon voyage*.

Among the other mushroom people there were MGA members Mrs. Hildegarde Robertson and her husband, Mr. and Mrs. W. L. M. Denny, Dr. and Mrs. Charles Kark, Mr. and Mrs. E. Udwin, Mr. and Mrs. Stephen Maritz, Mr. and Mrs. Cyril Kumst and Mr. and Mrs. D. Garthorn, as well as Mr. Timbrell, Mr. and Mrs. Bales, Mr. John Fothergill (who was a member when he grew mushrooms in Leicestershire and Surrey) and Mrs. Fothergill, Dr. and Mrs. M. Kuper, Dr. and Mrs. Adelstein, Dr. and Mrs. Louw and Miss Shrubsole (who did the original planning of the Plant/Protection Darlington colour film and is now married and resident in the Transvaal).

I had heard of South African hospitality, of course, but I was staggered by the experience of it; and the climate around Johannesburg really is delectable . . . But I must be careful what I say: I might encourage some growers in Britain to try their hand in South Africa, and that would never do! The competition between the 15 or 20 growers there is already very keen, and some told me the market was saturated.

I was innocently involved in an argument at cross purposes in the *Rand Daily Mail* which would have been fun, had not my opponent been Mrs. Robertson, whom I have always admired and whom I was delighted to meet personally. A recapitulation here of that controversy would serve no useful purpose, but it centred on the attitude of established growers towards newcomers. We once had the same problem here, and had we taken the arguments seriously there would have been no MGA in Great Britain. Perhaps the English climate encourages thicker skins?

I was delighted to see a notice in a Paris restaurant recently which read: *More or less we speak English.* I was equally amused by a notice

in a Sabie hotel: *Danger, men drinking!* The pressure of hospitality was formidable, but when we spoke Mushrooms there was no " more or less " about it. Once again it was brought home to me that he who thinks we in Britain have all the ideas and should not divulge our " secrets " is the victim of a shortsightedness from which he will surely suffer.

There are those who protest if the *MGA Bulletin* publishes " impressions " of growing in other countries derived from a single rushed visit. I personally see no harm in " impressions "; they may be good or bad, and if based on wrong premises can always be corrected in a subsequent issue. Therefore I hope the Editor will permit me a few generalizations.

The South African mushroom industry has been described in a Transvaal newspaper as having a £1,000,000 annual turnover. I cannot believe this, of course; but I did discover, from half-a-dozen farm walks in those ten days, that in the post-war years a number of intelligent people have started to grow. By " intelligent " I mean they are people with minds which think independently, uncluttered (as most of our minds are cluttered) by orthodoxy and tradition. European South Africa is young, the post-war growers there are energetic and their ideas stimulating. Statisticians, electrical engineers, constructional engineers, chemists, professional men—I met people of this type on my travels in June, as well as the more down-to-compost types who in the past have made the most successful mushroom growers. It will be fascinating to watch the developments of this young industry, for new minds are at work.

The hesitancy to form a local organisation or mutual-aid group is a close parallel to that which we encountered in Britain in 1945, until we realised that only as a representative body could we make any impression on official and governmental policy regarding mushrooms. At what was more or less an MGA Area Meeting in Johannesburg, on 24th June, I was asked what was the secret of our success in forming the MGA. I replied that it depended firstly on an emergency (mushrooms were frowned upon during the War and were unrecognised as a food at that time) and secondly, on an enthusiastic handful of growers who were prepared to do the spade-work without thought of reward.

Perhaps when the current import restrictions are lifted the need for such an organisation in the Union will become apparent. I hope it will not then be too late, for the dependence of some growers on the canning industry is vulnerable. My best wishes go to Dr. Charles Kark and the others who share my views on this matter; kicks will be more frequent than thanks, but they are not the kind of people to worry about that.

Finally, my " impressions ": Almost everyone was on trays. The quality of the manure was highly variable. Some of the compost were good by any standard. I did not like most of the casing soils. It seemed a mistake to leave the watering to native labour, as some were doing. The quality of the construction of some houses, and their design, were impressive. The packing of fresh mushrooms was lamentable.

RESEARCH IN 1953

Report for Year 1953 has just been published by the Mushroom Research Association Ltd. and is obtainable from Yaxley at 5/-.

As the Chairman, Mr. Fred. C. Atkins, remarks in the preface, " the ending of the Yaxley era (at the end of September, 1954) is in some respects saddening, but the bold pioneering venture has succeeded in so far as mushroom research will now continue indefinitely at Toddington, where immeasurably greater resources and facilities will exist."

The year 1953, of course, will be remembered in mushroom industry for the introduction of peat as a casing material. Peat has long been known to be useful as an addition to some soils, but it was not until very promising results had been obtained at Yaxley *with peat as the main constituent*, rather than a supplement, that it achieved real popularity. So many soils used for casing are unsuitable that it is not surprising that one or other of the peat formulae has proved superior.

But need we plough through pages of statistically analysed data, growers sometimes ask. There is no need, of course; but a mushroom grower generally has the kind of mind which likes to look beneath the surface of things—not merely in search of mycelial strands, but to discover if possible the clues which led up to a decision or to understand the trials which resulted in the evolution of a formula. That is why this latest Annual Report is so rewarding.

There have been requests for more specific directions, more precise guidance on how to " manage " peat as a casing material. They have caused some embarrassment to the research staff, because such information did not exist. In initial experiments it was found that peat was better than some soils, and this fact was published. But it was the decision of the MRA Directorate, with its MGA-nominated majority, that the fundamental nature of their research on the *function* of the casing should not be side-tracked, and that it was up to growers themselves to adapt those formulae to their conditions and learn how to handle them.

The Report discusses the difficulties involved in standardising a method of wetting peat, remarking that hot water acts more quickly than cold, and that wetting agents may be useful. Other sidelights are that a deeper-than-usual layer of 1·8 inches of peat gave the highest yield in one experiment; that addition of an excess of hydrated lime gave few but heavier mushrooms in a peat-sand mixture; and that none of three " soil conditioners " had any beneficial effect on a clay-loam subsoil.

A survey of commercial practice is interesting, and all growers who have ever attributed reduced cropping to " Verdigris " or " Mat "—and who has not?—should certainly read Dr. Edwards and Miss Gandy's discussion on Mushroom Disease Names. It seems likely that more rot has been talked about " yellow moulds in the compost " than most other controversial aspects of mushroom growing, and some clarification is overdue. **F.C.A.**

GROWING IN STEPS

by McGregor Bulloch

8—FILLING AND PEAK-HEATING

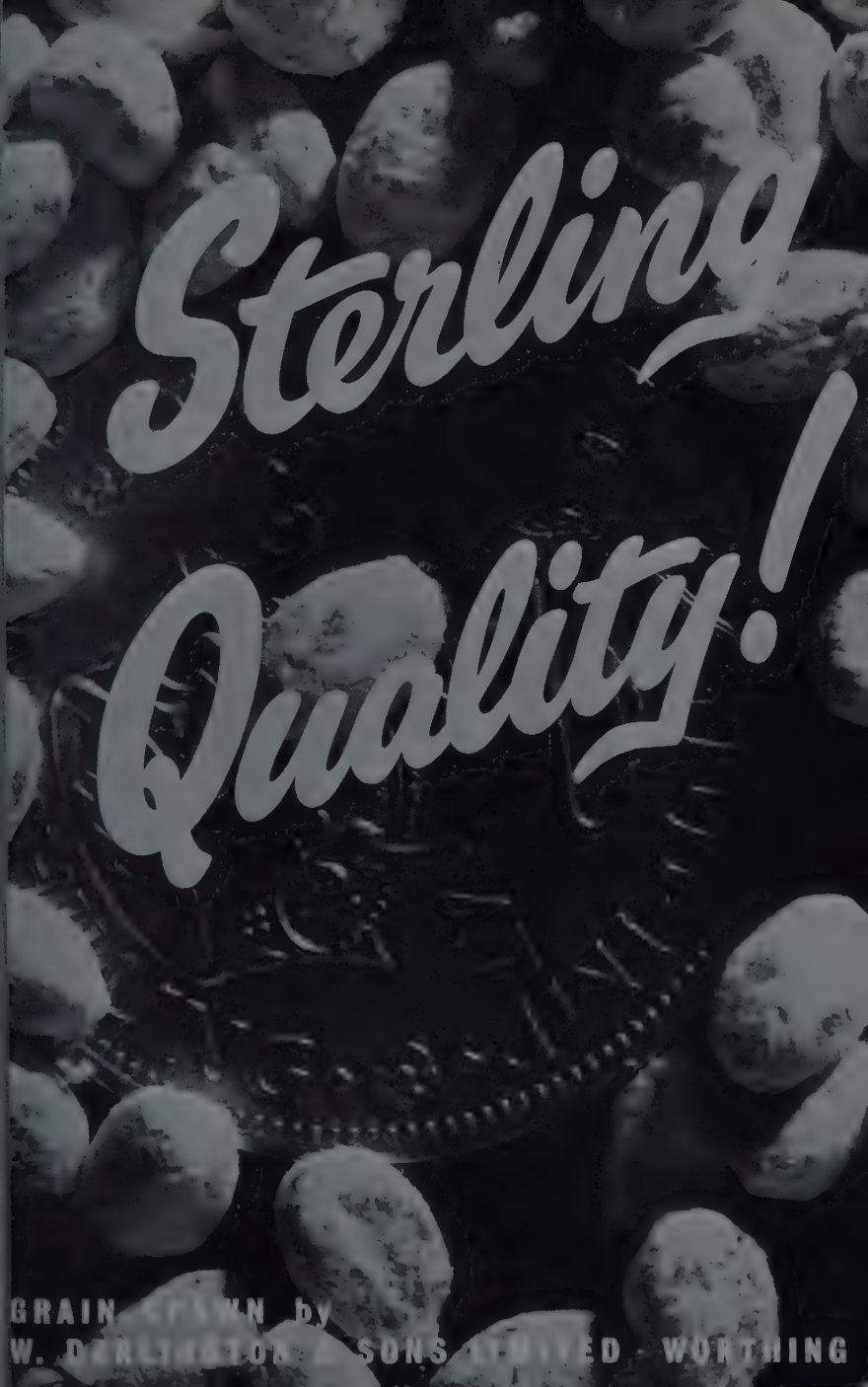
It will be assumed that the growing sheds have been cleaned out, disinfected, and are ready for the filling operation. Little need be said about this preparation, except that thoroughness pays in this as in every phase of mushroom-growing. Disinfectants commonly used for spraying the interiors of growing sheds are formaldehyde at 2½% strength or one of the cresylic acid preparations at 1%. The latter should be obtained from a recognised supplier of mushroom growing sundries, since it should be of good quality.

Filling is possibly the biggest operation on a farm, from the point of view of labour involved. Every spare man should be used, since the accent is on speed. The sooner the operation is completed, the less chance there is for the compost to cool off, and the more quickly will it re-heat during the first few hours of peak-heating.

With regard to trays, there is a tendency for these to be filled somewhat loosely so that at the moment of casing the depth is much less than it should be, sometimes as little as 3½″ to 4″. The trays should be filled to the full 6″ available, after gentle firming. When the casing is applied at a later stage, its weight will depress the compost and a full 5″ will be obtained. Not only does a shallow compost dry out more quickly than a deep one, but it will not produce as much. Shelves are usually a minimum of 6″ in depth after the casing is applied, but if a cropping period of 12 weeks is aimed at, or 2½ crops per annum, then it is advisable to have a deeper compost, up to 8″ or 9″. Although a number of growers refuse to believe that 3 lb. and more per sq. ft. can be grown on shelves in 12 weeks, it can be done, but generally on deep beds only. The sceptics would do well to test the average depth of their beds at the first appearance of pinheads, and not include the casing in their measurements. It is not unusual to find them with 4″ of compost only.

Regarding the density of beds it will be found that a wet short compost should only be firmed lightly with the hands at filling, whereas a long, dryish compost should be well firmed.

While the filling operation is going on, preparations should be made for everything to be ready for the peak-heat, as soon as the last bit of compost has been filled into tray or shelf. There are several ways of obtaining peak-heat temperatures of up to 140° F., and these are as follows. Where low-pressure steam is used for general heating, the peak-heat room, if trays are used, should not only have pipes around its interior carrying the steam, but provision for releasing live steam into the air. The pipes, incidentally, could with advantage be gilled.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With hot-water heating, either a separate steam-boiler should be used, or coke braziers can be used to supplement the heat. Some growers employ calor gas for this purpose, and that can be quite successful if precautions are taken to maintain sufficient oxygen in the house during peak-heat, otherwise the burners might go out. If the mains will carry the load, electric heaters can also be used to boost the normal heating, either banks of tubular heaters, or preferably, 5 kw. heaters fitted with fans, which also help to circulate the air during the peak-heat.

As the peak-heat proceeds, the beginner will find that inevitably the top beds run several degrees higher than the bottom beds. It will help, to instal either a highly insulated floor or an efficient method of air distribution by means of fans which circulate the air continuously. One small item, which is often overlooked is that, if the bottom beds are filled first, they will at least have a chance of warming up, while the others are being filled, and thus help towards achieving even temperatures over a longer period than would otherwise be the case.

The object of peak-heating, once the desired temperature of 135° F. or so is reached, is to subject the compost to a curing process, in which, instead of the compost being in an unwieldy mass, it is in thin, even layers to which the air has free access. The temperature at which most insects are killed when exposed for a few hours is around 125° F., so that a temperature exceeding this is worthwhile if for no other reason.

The curing process makes or mars a compost, and great attention should be given to every phase of the operation. It is advisable to make sure that the temperature of the compost does not rise above 140° F. for any length of time or certain ill-effects may follow. During the heating-up, toxic gases, including ammonia are given out by the compost and it is beneficial to aerate the peak-heat chamber at intervals, say in the morning and evening, for a period of 10 to 20 minutes, depending on the efficiency of the air extraction system. Although the air temperature will obviously fall rapidly, it soon rises on closing the doors, since the compost does not drop more than a few degrees if at all during this short period. The additional oxygen given, stimulates the growth of *actinomycetes* which cause "firefang," and it will be noticed after 24 hours that the compost inside the trays or beds is speckled with white flecks of the organism. This is a helpful sign, and shows that the compost is curing in the right way. On the other hand, an excessive development of the *actinomycetes* must be avoided, i.e., a white mycelial growth covering the entire surface of the straws in the middle of the compost. Production will be greatly affected by this overheating and it must not be allowed to reach this stage.

FARM WALK IN SCOTLAND

Members, other than those who reside in Scotland, who intend to be present at the farm walk at Albethy, Bridge of Allan, Scotland, on September 4th, are asked to notify the Secretary without delay, indicating their requirements, particularly regarding accommodation.

Scottish members will be communicated with individually within the next few days.

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NOTES FOR YOUR DIARY

4th Sept.	Scottish Farm Walk and Area Meeting, Albethy, Bridge of Allan, Stirlingshire (Mr. W. S. Galbraith).
7th—18th Sept.	British Food Fair, Olympia, London. MGA Stand with the Essex Farmers' Union Stand.
6th—7th Oct.	Annual Mushroom Industry Exhibition and MGA Annual Meeting, Tunbridge Wells.
30th Oct.	Area Meeting and Farm Walk, Shadowlawn Products, Kimcote, Rugby. (Mr. N. R. Cooper), 2 p.m.

GREAT MISSENDEN FARM WALK

About forty members took part in the farm walk at Long Meadow, South Heat, Great Missenden, Bucks., on Saturday, 17th July, where Mr. H. G. Bird has a modern range of buildings covering some 24,000 sq. ft. on the tray system.

Heavy rain kept the attendance down and the refreshments provided for the visitors before the farm walk commenced were particularly welcomed. Mr. and Mrs. Bird were on hand to make the visitors comfortable.

Dr. Peet (Messrs. Geo. Monro Ltd.) gave a short introductory talk, hand-outs of Mr. Bird's methods were available to everyone and afterwards the visitors toured the farm in small groups.

Particularly appreciated was a new departure in the usual routine of farm walks for, in addition to the hand-outs, members of Mr. Bird's staff were posted beside the various operations with which they specially dealt and questions were asked and answered on the spot.

Members were particularly impressed by the lay-out of the block of "King" houses and a member of the firm was on hand to answer enquiries about this now familiar type of mushroom house and other buildings.

Tea was in the Village Hall and, afterwards, a "Brains Trust" was held with Mr. F. Bleazard of Blackpool, a member of the Executive Committee, in the chair.

The panel was made up of Mr. Bird, Dr. Peet and Mr. D. M. Nommensen, manager of Heather Farm, Ltd., Horsell Common, Woking. Various questions were asked and answered and Mr. Bird paid tribute to his staff.

Mr. Bird plans to extend eventually to 50,000 sq. ft. He commenced mushroom growing about four years ago.

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MURPHANE Wettable

Powder for wet spraying (containing Dithane Z78*). Use 1 lb. per 100 gallons, applying 1 gallon per 100 sq. ft. of bed.

1 lb. 15/6; 14 lb. £9.16.0.; 28 lb. £18.18.0.

MURPHANE Dust

Contains Dithane Z78*. Use 8-12 oz. per 1,000 sq. ft. of bed after casing and two more applications between breaks, or 4 oz. per 1,000 sq. ft. for regular weekly dusting.

7 lb. 26/3; 14 lb. £2.10.2.; 28 lb. £4.15.8.

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THE MURPHY CHEMICAL COMPANY LTD.

WHEATHAMPSTEAD HERTFORDSHIRE

SMALL ADVERTISEMENTS—(*continued from page 266*)

CARBONATE OF LIME. Finely ground, best quality Derbyshire limestone. Supplied in 56 lb. bags for easy handling. 1 cwt., 7/-d. per cwt.; 5 cwts., 6/6d. per cwt.; 10 cwts., 6/- per cwt. Plus carriage at cost. Special prices quoted for 1 ton upwards. DERBYSHIRE STONE LIMITED, Matlock. ('Phone 741).

CREOSOTE: 40 gallons 83/4d. delivered in free drum; REFINED TAR (needs heating) 88/4d.; BARN TAR (can be painted on cold) 93/4d.; COOPERS, Limeburners, Canterbury.

FOR SALE: Robin Hood 8-section " Major " Boiler for 4,460′ of 4″ Pipe; " New C " 7-section for 2,045′; " General " 7-section for 1,130′; Junior 7-section, for 720′. Also Ideal Britannia Boiler, etc. 2¾″ bore Gilled Steam Heating Tubing, large quantity, also 4″ C.I. Hotwater Pipe. Portable Vertical Steam Boiler 7′ 6″ × 3′ 6″ dia. on wheels. A. H. KIMMINS & SONS LTD., Lyndhurst Road, Worthing.

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TRAYS: For Sale approximately 650 used Trays 50, 38″ × 25″ × 6″ 12/- per doz.; 200, 40″ × 20″ × 6″ 10/- per doz.; 400, 33″ × 18″ × 7″ 9/- per doz. Coombe Bank Market Gardens, Sundridge, Nr. Sevenoaks, Kent.

FOR NORTHERN MUSHROOM GROWERS. Save on carriage: Finest quality imported Sphagnum Peat: 20 bushel bales. Quotations and samples on request. ELTONMOSS LTD., 8a James Street, Harrogate. 'Phone: 4554.

200 TRAYS FOR SALE: Good condition. 3′ 3″ × 2′ 6″ × 6″ deep. 4/- each to clear. AVALON MUSHROOMS, Peterborough Road, Farcet, Peterborough. 'Phone: Farcet 4555.

(*Continued on back cover*)

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SIZE 3. 3/4,500 cu. ft. per pellet 5/6 *per tube of 4*
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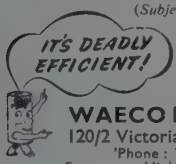

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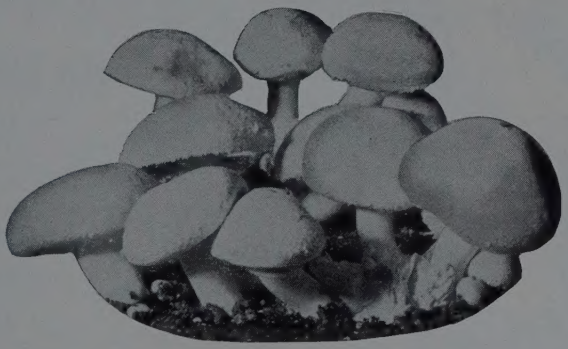
To **ALL MUSHROOM GROWERS**



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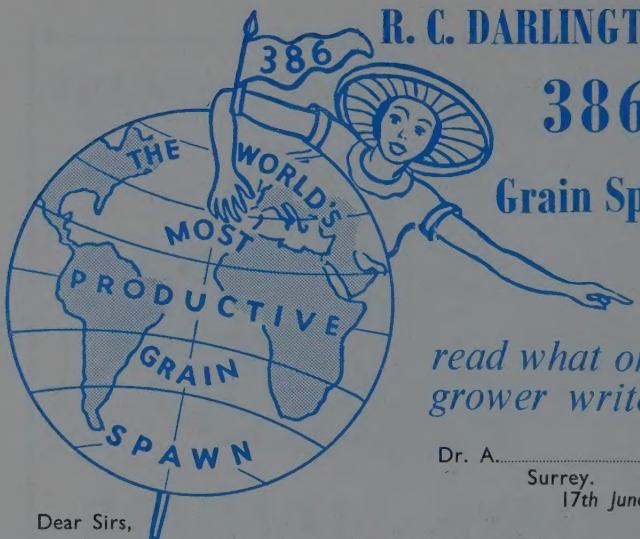

R. C. DARLINGTON'S

386

Grain Spawn

read what one grower writes

Dr. A.....
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17th June, 1954.

Dear Sirs,

. . . . . your spawn, having been used by us for the first time, is still a strange field with which we are not fully acquainted but, nevertheless, with our first trial it is proving very successful and offers growers much scope for improved production and adaption. Undoubtedly growers will use this product in the near future as it is evident that on our first growing the spawn, as such, is not only very successful but is the *best we have had the pleasure of handling.*

Having spawned a house (tray system), this was cased after twelve days, *the first mushrooms appeared after fifteen days and the first ones were picked after eighteen days.*

I wish to draw your attention to the fact, when being cased after fifteen days, we could see not only a vigorous spawn run, but every appearance of a *very promising crop.* The spawn itself is of remarkable quality and the mushrooms are of an equivalent nature in general. I can assure you that these mushrooms are *as good in taste as they are in texture* and, therefore, yours is the *product of the future.*

Yours faithfully,

(*Signed*) Dr. A.....

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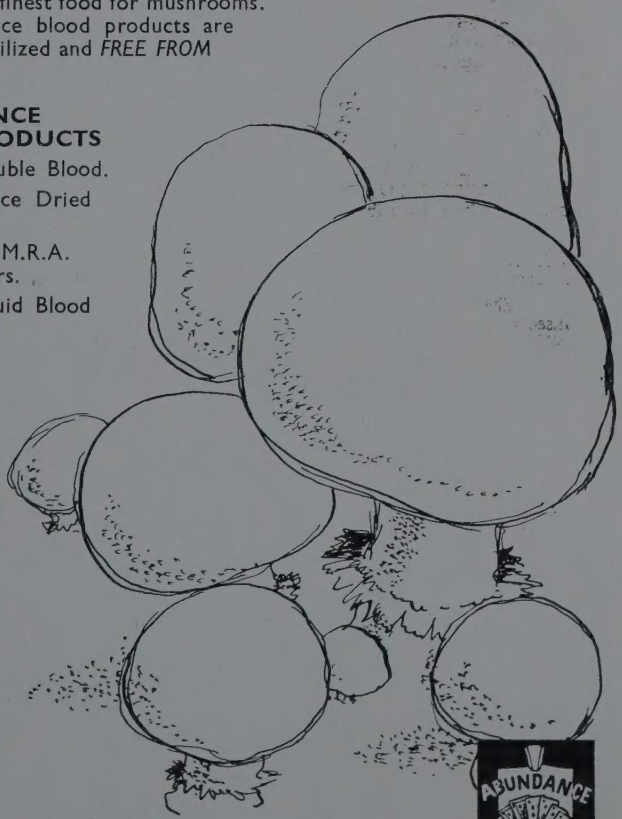

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